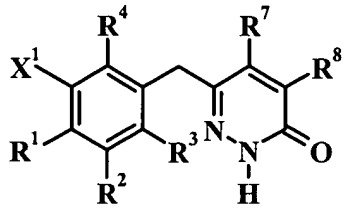
LISTING OF CURRENT CLAIMS

1. (currently amended) A compound according to formula **I**



(I)

wherein;

X^1 is selected from the group consisting of R^5O, $R^5S(O)_n$, R^5CH_2, R^5CH_2O, $R^5CH_2S(O)_n$, R^5OCH_2, $R^5S(O)_nCH_2$ and NR^5R^6;

R^1 and R^2 are

(i) each independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, halogen, amino, alkylamino, dialkylamino, aminoacyl, nitro and cyano; or,

(ii) taken together are -CH=CH-CH=CH-, or

(iii) taken together along with the carbons to which they are attached form a five- or six-membered heteroaromatic or heterocyclic ring with a one or two heteroatoms independently selected from the group consisting of O, S and NH;

R^3 is selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkylthio, C_{1-6} haloalkylthio, halogen, amino, alkylamino, dialkylamino, aminoacyl, nitro and cyano;

R^4 is selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, halogen, amino, alkylamino, dialkylamino, aminoacyl, nitro and cyano;

R^5 is selected from the group consisting of alkyl, haloalkyl, cycloalkyl, phenyl, naphthyl, pyridinyl, pyridine N-oxide, pyridine N-oxide, indole, indole N-oxide, quinoline, quinoline N-oxide, pyrimidinyl, pyrazinyl and pyrrolyl; wherein,

said alkyl and said cycloalkyl are optionally substituted with one or two substituents independently selected from the group consisting of alkyl, hydroxy, alkoxy, thiol, alkylthio, halogen, amino, alkylamino, dialkylamino, aminoalkyl, alkylaminoalkyl, and dialkylamino; and,

said phenyl, said naphthyl, said pyridinyl, said pyridine N-oxide, said indole, said indole N-oxide, said quinoline, said quinoline N-oxide, said pyrimidinyl, said pyrazinyl and said pyrrolyl groups are optionally substituted with one to three substituents independently

selected from the group consisting of C_{1-6} alkyl, C_{1-6} alkenyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, hydroxy, halogen, amino, C_{1-6} alkylamino, C_{1-6} dialkylamino, aminoacyl, acyl, C_{1-6} alkoxycarbonyl, carbamoyl, C_{1-6} N-alkylcarbamoyl, C_{1-6} N,N-dialkylcarbamoyl, nitro and cyano;

R^6 is hydrogen, C_{1-6} alkyl, or acyl;

R^7 and R^8 (i) taken independently are selected from the group consisting of hydrogen, amino, C_{1-6} alkylamino, C_{1-6} dialkylamino, amino-C_{1-3} alkyl, C_{1-3} alkylamino-C_{1-3} alkyl, C_{1-3} dialkylamino-C_{1-3} alkyl or C_{1-6} alkyl optionally substituted with one or two substituents independently selected from the group consisting of hydroxy, alkoxy, thiol, alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl and halogen, N-morpholinyl; or, (ii) R^7 and R^8 taken together are $-(CH_2)_4-$;

n is an integer from 0 to 2;

with the proviso that when X^1 is OR^5, R^5 is not methyl; and,

hydrates, solvates, clathrates and acid addition salts thereof.

2. (original) A compound according to claim 1 wherein

R^5 is selected from the group consisting of alkyl, haloalkyl, cycloalkyl, phenyl, naphthyl, pyridinyl, pyrimidinyl, pyrazinyl and pyrrolyl; and,

said alkyl and said cycloalkyl are optionally substituted with one or two substituents independently selected from the group consisting of alkyl, hydroxy, alkoxy, thiol, alkylthio, halogen, amino, alkylamino, dialkylamino, aminoalkyl, alkylaminoalkyl, and dialkylamino; and,

said phenyl, said naphthyl, said pyridinyl, said pyrimidinyl, said pyrazinyl and said pyrrolyl groups are optionally substituted with one to three substituents independently selected from the group consisting of C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, halogen, alkylamino, dialkylamino, aminoacyl, cyano, and acyl.

3. (original) A compound according to claim 2 wherein:

X^1 is OR^5 or SR^5;

R^3 is hydrogen or fluoro;

R^4 is selected from the group consisting of hydrogen, chloro, fluoro and methyl;

R^5 is optionally substituted phenyl; and,

R^7 and R^8 are selected from the group consisting of hydrogen, amino, C_{1-6} alkylamino, C_{1-6} dialkylamino, amino-C_{1-3} alkyl, C_{1-3} alkylamino-C_{1-3} alkyl, C_{1-3} dialkylamino-C_{1-3} alkyl and C_{1-6} alkyl optionally substituted with hydroxy, alkoxy, thiol, alkylthio, halogen.

4. (original) A compound according to claim 3 wherein R^1 is methyl, ethyl, trifluoromethyl or halogen.

5. (original) A compound according to claim 4 wherein R^5 is monosubstituted phenyl.

6. (original) A compound according to claim 4 wherein R^5 is 2,5-disubstituted phenyl.

7. (original) A compound according to claim 4 wherein R^5 is 3,5-disubstituted phenyl.

8. (original) A compound according to claim 4 wherein R^5 is 2,4-disubstituted phenyl.

9. (original) A compound according to claim 4 wherein R^5 is 2,6-disubstituted phenyl.

10. (original) A compound according to claim 2 wherein:

X^1 is $-OR^5$ or $-SR^5$;

R^1 and R^2 are independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, halogen, amino, alkylamino, dialkylamino, aminoacyl, nitro and cyano; and

R^3 is hydrogen or fluorine.

11. (original) A compound according to claim 10 wherein:

X^1 is OR^5;

R^1 is methyl, ethyl, trifluoromethyl or halogen;

R^2 and R^4 are hydrogen, fluoro, chloro, methyl or ethyl;

R^3 is hydrogen or fluoro;

R^7 is hydrogen, methyl or ethyl; and,

R^8 is selected from the group consisting of hydrogen, amino, C_{1-6} alkylamino, C_{1-6} dialkylamino, amino-C_{1-3} alkyl, C_{1-3} alkylamino-C_{1-3} alkyl, C_{1-3} dialkylamino-C_{1-3} alkyl and C_{1-6} alkyl optionally substituted with hydroxy, alkoxy, thiol, alkylthio, halogen.

12. (original) A compound according to claim 11 wherein R^5 is monosubstituted phenyl.

13. (original) A compound according to claim 12 wherein R^5 is a monosubstituted phenyl and the substituent is selected from the group consisting of halogen, cyano, C_{1-6} alkyl, C_{1-6} alkenyl, C_{3-8} cycloalkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio and C_{1-6} haloalkoxy.

14. (original) A compound according to claim 13 wherein R^1 is selected from the group consisting of halogen, methyl, ethyl, R^3 and R^7 are hydrogen, R^5 is a monosubstituted phenyl and the substituent is selected from the group consisting of halogen, cyano, C_{1-6} alkyl and C_{1-6} haloalkyl and R^8 is selected from the group consisting of hydrogen, methyl and ethyl.

15. (original) A compound according to claim 11 wherein R^5 is 2,5-disubstituted phenyl.

16. (original) A compound according to claim 15 wherein R^5 is a 2,5-disubstituted phenyl and the substituents are independently selected from the group consisting of halogen, cyano, C_{1-6} alkyl, C_{1-6} alkenyl, C_{3-8} cycloalkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio and C_{1-6} haloalkoxy.

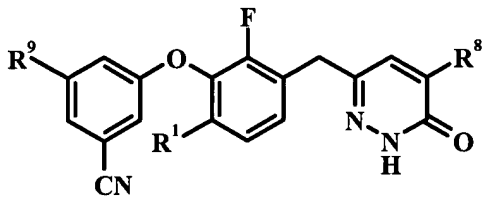
17. (original) A compound according to claim 16 wherein R^1 is selected from the group consisting of halogen, methyl, ethyl, R^3 and R^7 are hydrogen, R^5 is a 2,5-disubstituted phenyl and the substituent is selected from the group consisting of halogen, cyano, C_{1-6} alkyl and C_{1-6} haloalkyl and R^8 is selected from the group consisting of hydrogen, methyl and ethyl.

18. (original) A compound according to claim 11 wherein R^5 is 3,5-disubstituted phenyl.

19. (original) A compound according to claim 18 wherein R^5 is a 3,5-disubstituted phenyl and the substituents are independently selected from the group consisting of halogen, cyano, C_{1-6} alkyl, C_{1-6} alkenyl, C_{3-8} cycloalkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio and C_{1-6} haloalkoxy.

20. (original) A compound according to claim 19 wherein R^1 is selected from the group consisting of halogen, methyl, ethyl, R^3 and R^7 are hydrogen, R^5 is a 3,5-disubstituted phenyl and the substituent is selected from the group consisting of halogen, cyano, C_{1-6} alkyl and C_{1-6} haloalkyl and R^8 is selected from the group consisting of hydrogen, methyl and ethyl.

21. (original) A compound according to claim 20 with formula **Ia** wherein:



(Ia)

R^1 is selected from the group consisting of fluoro, chloro, bromo and methyl;

R^8 is selected from the group consisting of hydrogen, methyl and ethyl;

R^9 is selected from the group consisting of C_{1-6} alkyl, C_{3-8} cycloalkyl, C_{1-6} haloalkyl, halogen and cyano.

22. (original) A compound according to claim 11 wherein R^5 is 2,4-disubstituted phenyl.

23. (original) A compound according to claim 22 wherein R^5 is a 2,4-disubstituted phenyl and the substituents are independently selected from the group consisting of halogen, cyano, C_{1-6} alkyl, C_{1-6} alkenyl, C_{3-8} cycloalkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio and C_{1-6} haloalkoxy.

24. (original) A compound according to claim 23 wherein R^1 is selected from the group consisting of halogen, methyl, ethyl, R^3 and R^7 are hydrogen, R^5 is a 2,4-disubstituted phenyl and the substituent is selected from the group consisting of halogen, cyano, C_{1-6} alkyl and C_{1-6} haloalkyl and R^8 is selected from the group consisting of hydrogen, methyl and ethyl.

25. (original) A compound according to claim 11 wherein R^5 is 2,6-disubstituted phenyl.

26. (original) A compound according to claim 25 wherein R^5 is a 2,6-disubstituted phenyl and the substituents are independently selected from the group consisting of halogen, cyano, C_{1-6} alkyl, C_{1-6} alkenyl, C_{3-8} cycloalkyl, C_{1-6} haloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio and C_{1-6} haloalkoxy.

27. (original) A compound according to claim 26 wherein R^1 is selected from the group consisting of halogen, methyl, ethyl, R^3 and R^7 are hydrogen, R^5 is a 2,6-disubstituted phenyl and the substituent is selected from the group consisting of halogen, cyano, C_{1-6} alkyl and C_{1-6} haloalkyl and R^8 is selected from the group consisting of hydrogen, methyl and ethyl.

28. (original) A compound according to claim 11 wherein R^5 is a 2,3,5-trisubstituted phenyl.

29. (original) A compound according to claim 1 wherein:

X^1 is OR^5 or SR^5;

R^3 and R^4 are selected from the group consisting of hydrogen, chloro, fluoro, and methyl;

R^5 is optionally substituted pyridinyl, pyridine N-oxide, indole, indole N-oxide, quinoline, quinoline N-oxide, pyrimidinyl, pyrazinyl and pyrrolyl.

30. (original) A compound according to claim 1 wherein R^1 and R^2 along with the carbon atoms to which they are attached form a phenyl, dihydropyran, dihydrofuran or furan ring.

31. (original) A compound according to claim 30 wherein:

X^1 is OR^5 or SR^5;

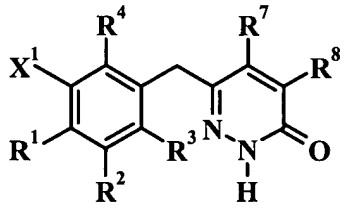
R^3, and R^7 are hydrogen;

R^4 is hydrogen or fluoro;

R^8 is hydrogen or methyl; and,

R^5 is optionally substituted phenyl.

32. (original) A method for treating an HIV infection, or preventing an HIV infection, or treating AIDS or ARC, comprising administering to a host in need thereof a therapeutically effective amount of a compound of formula **I**



(I)

wherein,

X^1 is selected from the group consisting of R^5O, R^5S, R^5CH_2, R^5CH_2O, $R^5CH_2S(O)_n$, R^5OCH_2, $R^5S(O)_nCH_2$, $NR^5R^6$and $R^5C(=O)$;

R^1 and R^2 are

(i) each independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, halogen, amino, alkylamino, dialkylamino, aminoacyl, nitro and cyano; or,

(ii) taken together are -CH=CH-CH=CH-, or

(iii) taken together along with the carbons to which they are attached form a five- or six-membered heteroaromatic or heterocyclic ring with a one or two heteroatoms independently selected from the group consisting of O, S and NH;

R^3 and R^4 are each independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, halogen, amino, alkylamino, dialkylamino, aminoacyl, nitro and cyano;

R^5 is selected from the group consisting of alkyl, haloalkyl, cycloalkyl, phenyl, naphthyl, pyridinyl, pyrimidinyl, pyrazinyl and pyrrolyl; wherein,

said alkyl and said cycloalkyl are optionally substituted with one or two substituents independently selected from the group consisting of alkyl, hydroxy, alkoxy, thiol, alkylthio, halogen, amino, alkylamino, dialkylamino, aminoalkyl, alkylaminoalkyl, and dialkylamino; and,

said phenyl, said naphthyl, said pyridinyl, said pyrimidinyl, said pyrazinyl and said pyrrolyl groups are optionally substituted with one to three substituents independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, hydroxy, halogen, amino, alkylamino, dialkylamino, aminoacyl, acyl, alkoxycarbonyl, carbamoyl, N-alkylcarbamoyl, N,N-dialkylcarbamoyl, nitro and cyano;

R^6 is hydrogen, C_{1-6} alkyl, or acyl;

R^7 and R^8 (i) taken independently are selected from the group consisting of hydrogen, , amino, C_{1-6} alkylamino, C_{1-6} dialkylamino, amino-C_{1-3} alkyl, C_{1-3} alkylamino-C_{1-3} alkyl, C_{1-3} dialkylamino-C_{1-3} alkyl or C_{1-6} alkyl optionally substituted with one or two substituents independently selected from the group consisting of hydroxy, alkoxy, thiol, alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl and halogen, N-morpholinyl; or, (ii) R^7 and R^8 taken together are -CH=CH-CH=CH- or $-(CH_2)_4-$;

n is an integer from 0 to 2; and,

hydrates, solvates, clathrates and acid addition salts thereof.

33. (original) A method according to claim 32 wherein:

X^1 is OR^5;

R^1 is methyl, ethyl, trifluoromethyl or halogen;

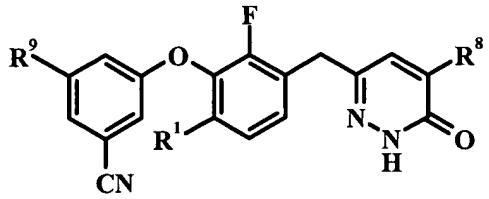
R^2 and R^4 are independently hydrogen, fluoro, chloro, methyl or ethyl;

R^3 is hydrogen or fluoro; and,

R^5 is optionally substituted phenyl;

R^7 is hydrogen, methyl or ethyl.

34. (original) A method according to claim 33 comprising administering a compound of formula **Ia** wherein



(Ia)

R^1 is selected from the group consisting of fluoro, chloro, bromo and methyl;

R^8 is selected from the group consisting of hydrogen, methyl and ethyl;

R^9 is selected from the group consisting of alkyl, cycloalkyl, haloalkyl, halogen and cyano.

35. (original) A method for treating HIV infection according to claim 32 further comprising co-administering at least one compound selected from the group consisting of HIV protease inhibitors, nucleoside reverse transcriptase inhibitors, non-nucleoside reverse transcriptase inhibitors, CCR5 inhibitors and viral fusion inhibitors.

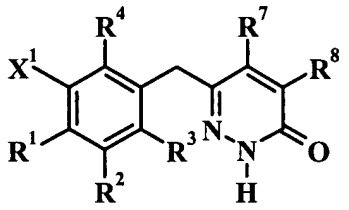
36. (original) A method according to claim 35 wherein the reverse transcriptase inhibitor is selected from the group consisting of zidovudine, lamivudine, didanosine, zalcitabine, stavudine, rescriptor, sustiva and viramune, efavirenz, nevirapine or delavirdine and/or the protease inhibitor is selected from the group consisting of saquinavir, ritonavir, nelfinavir, indinavir, amprenavir, lopinavir.

37. (original) A method for inhibiting a retrovirus reverse transcriptase comprising administering a compound according to claim 32.

38. (original) A method according to claim 37 wherein the host is infected with a strain of HIV expressing a reverse transcriptase with at least one mutation compared to wild type virus.

39. (original) A method according to claim 32 wherein said strain of HIV exhibits reduced susceptibility to efavirenz, nevirapine or delavirdine.

40. (original) A pharmaceutical composition comprising a therapeutically effective quantity of a compound of formula **I**



(I)

wherein:

X^1 is selected from the group consisting of R^5O, $R^5S(O)_n$, R^5CH_2, R^5CH_2O, $R^5CH_2S(O)_n$, R^5OCH_2, $R^5S(O)_nCH_2$ and NR^5R^6;

R^1 and R^2 are

(i) each independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, halogen, amino, alkylamino, dialkylamino, aminoacyl, nitro and cyano; or,

(ii) taken together are -CH=CH-CH=CH-, or

(iii) taken together along with the carbons to which they are attached form a five- or six-membered heteroaromatic or heterocyclic ring with a one or two heteroatoms independently selected from the group consisting of O, S and NH;

R^3 is selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkylthio, C_{1-6} haloalkylthio, halogen, amino, alkylamino, dialkylamino, aminoacyl, nitro and cyano;

R^4 is selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, halogen, amino, alkylamino, dialkylamino, aminoacyl, nitro and cyano;

R^5 is selected from the group consisting of alkyl, haloalkyl, cycloalkyl, phenyl, naphthyl, pyridinyl, pyrimidinyl, pyrazinyl and pyrrolyl; wherein,

said alkyl and said cycloalkyl are optionally substituted with one or two substituents independently selected from the group consisting of alkyl, hydroxy, alkoxy, thiol, alkylthio, halogen, amino, alkylamino, dialkylamino, aminoalkyl, alkylaminoalkyl, and dialkylamino; and,

said phenyl, said naphthyl, said pyridinyl, said pyrimidinyl, said pyrazinyl and said pyrrolyl groups are optionally substituted with one to three substituents independently selected from the group consisting of hydrogen, C_{1-6} alkyl, C_{1-6} haloalkyl, C_{3-8} cycloalkyl, C_{1-6} alkoxy, C_{1-6} alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl, C_{1-6} haloalkoxy, C_{1-6} haloalkylthio, hydroxy, halogen, amino, alkylamino, dialkylamino, aminoacyl, acyl, alkoxycarbonyl, carbamoyl, N-alkylcarbamoyl, N,N-dialkylcarbamoyl, nitro and cyano;

R^6 is hydrogen, C_{1-6} alkyl, or acyl;

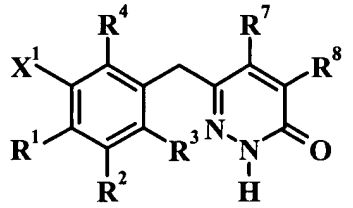
R^7 and R^8 (i) taken independently are selected from the group consisting of hydrogen amino, C_{1-6} alkylamino, C_{1-6} dialkylamino, amino-C_{1-3} alkyl, C_{1-3} alkylamino-C_{1-3} alkyl, C_{1-3} dialkylamino-C_{1-3} alkyl or C_{1-6} alkyl optionally substituted with one or two substituents independently selected from the group consisting of hydroxy, alkoxy, thiol, alkylthio, C_{1-6} alkylsulfinyl, C_{1-6} sulfonyl and halogen, N-morpholinyl; or, (ii) R^7 and R^8 taken together are $-(CH_2)_4-$;

n is an integer from 0 to 2; and,

hydrates, solvates, clathrates and acid addition salts thereof,

in admixture with at least one pharmaceutically acceptable carrier or diluent sufficient upon administration in a single or multiple dose regimen for treating diseases mediated by human immunodeficieny virus inhibit HIV.

41. (original) A process for preparing a compound of formula **I**, wherein X^1 is OR^5 or SR^5 and R^5 is an optionally substituted aryl, alkyl or aralkyl moiety and R^1-R^4, R^7 and R^8 are as defined hereinabove,

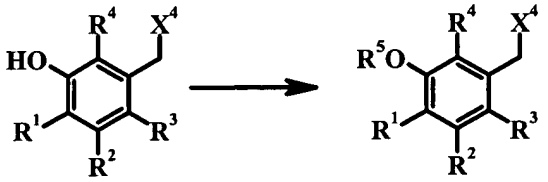


(I)

comprising the steps of:

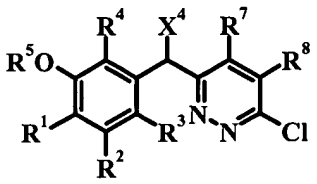
(*i*) coupling a aryl compound of formula **IIa** wherein X^4 is hydrogen, alkoxycarbonyl or CN with *(a)* an arylboronic acid or an aryl halide, or *(b)* an alcohol, alkyl halide or aralkyl halide to produce an ether of formula **IIb**; and, if X^4 is hydrogen,

(*ii*) *(a)* brominating the methyl group with N-bromosuccinimide and *(b)* displacing the bromide (X^4 = Br) with sodium cyanide to produce the corresponding nitrile (X^4 = CN);



(IIa) **(IIb)**

(*iii*) treating a compound of formula **IIb** with base and condensing the conjugate base of **IIb** (X^4 = alkoxycarbonyl or CN) with a pyrazine compound to produce a compound of formula **IIIa**;

(IIb) 

(IIIa)

(iv) cleaving the alkoxycarbonyl or nitrile by acidic or basic hydrolysis, decarboxylating the resulting carboxylic acid and hydrolysing the chloropyrazine to a pyridazinone of formula **I.**

42. (original) A process according to claim 41 wherein said ether is formed by coupling an arylboronic acid and **IIa** in the presence of a copper (II) salt.

43. (original) A process according to claim 41 wherein said ether is formed by coupling an aryl halide and **IIa** in the presence of a copper (I) salt.

44. (original) A process according to claim 41 wherein said ether is formed by coupling an alkyl halide, an aralkyl halide or aryl halide and said aryl halide being substituted with electronegative groups and **IIa,** said coupling being base-catalyzed.

45. (original) A process according to claim 41 wherein said ether is formed by coupling an alcohol and **IIa** said coupling is catalyzed an a dialkylazodicarboxylate and triaryl or trialkylphosphine.

46. (original) A process according to claim 41 wherein said base is sodium hydride and said pyrazine compound is a 3,6-dihalopyrazine or a 3-halo-6-alkoxypyrazine.

47. (original) A process according to claim 41 wherein said base is a sodium alkoxide and said pyrazine derivative is a 3,6-dihalopyrazine or a 3-halo-6-alkoxypyrazine.

48. (original) A process according to claim 41 wherein said acidic hydrolysis conditions comprise a carboxylic acid and an aqueous hydrohalic acid.

49. (original) A process according to claim 48 where said carboxylic acid is acetic acid and said hydrohalic acid is hydrochloric acid.

50. (original) A process according to claim 49 said process further comprising sodium acetate.

51. (original) A process according to claim 41 wherein said alkoxycarbonyl is saponified with base and said chloropyrazine is hydrolyzed by a carboxylic acid and an aqueous hydrohalic acid